

RACE TO THE TOP

Arizona Report

Year 2: December 2012–December 2013



U.S. Department of Education
Washington, DC 20202

June 2014

Executive Summary

Race to the Top overview

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009 (ARRA), historic legislation designed to stimulate the economy, support job creation, and invest in critical sectors, including education. ARRA provided \$4.35 billion for the Race to the Top fund, of which approximately \$4 billion was used to fund comprehensive statewide reform grants under the Race to the Top program.¹ In 2010, the U.S. Department of Education (Department) awarded Race to the Top Phase 1 and Phase 2 grants to 11 States and the District of Columbia. The Race to the Top program is a competitive four-year grant program designed to encourage and reward States that are creating the conditions for education innovation and reform; achieving significant improvement in student outcomes, including making substantial gains in student achievement, closing achievement gaps, and improving high school graduation rates; and ensuring students are prepared for success in college and careers. Since the Race to the Top Phase 1 and 2 competitions, the Department has made additional grants under the Race to the Top Phase 3, Race to the Top – Early Learning Challenge,² and Race to the Top – District³ competitions.

In 2011, the Department awarded Phase 3 grants to seven additional States, which were finalists in the Race to the Top Phase 1 and Phase 2 competitions. Race to the Top Phase 3 focuses on supporting efforts to leverage comprehensive statewide reform, while also improving science, technology, engineering, and mathematics (STEM) education.

The Race to the Top program is built on the framework of comprehensive reform in four education reform areas:

- Adopting rigorous standards and assessments that prepare students for success in college and the workplace;
- Building data systems that measure student success and inform teachers and principals how they can improve their practices;
- Recruiting, developing, retaining, and rewarding effective teachers and principals; and
- Turning around the lowest-performing schools.

Since education is a complex system, sustained and lasting instructional improvement in classrooms, schools, local educational agencies (LEAs), and States will not be achieved through piecemeal change. Race to the Top requires that States and LEAs participating in the State's Race to the Top plan (participating LEAs)⁴ take into account their local context to design and implement the most effective and innovative approaches that meet the needs of their educators, students, and families.

Race to the Top program review

As part of the Department's commitment to supporting States as they implement ambitious reform agendas, the Department established the Implementation and Support Unit (ISU) in the Office of the Deputy Secretary to administer, among others, the Race to the Top program. The goal of the ISU is to provide assistance to States as they implement unprecedented and comprehensive reforms to improve student outcomes. Consistent with this goal, the Department has developed a Race to the Top program review process that not only addresses the Department's responsibilities for fiscal and programmatic oversight, but is also designed to identify areas in which Race to the Top grantees need assistance and support to meet their goals. Specifically, the ISU works with Race to the Top grantees to differentiate support based on individual State needs, and helps States work with each other and with experts to achieve and sustain educational reforms that improve student outcomes. In partnership with the ISU, the Reform Support Network (RSN) offers collective and individualized technical assistance and resources to Race to the Top grantees. The RSN's purpose is to support Race to the Top grantees as they implement reforms in education policy and practice, learn from each other, and build their capacity to sustain these reforms.

Grantees are accountable for the implementation of their approved Race to the Top plans, and the information and data gathered throughout the program review help to inform the Department's management and support of the Race to the Top grantees, as well as provide appropriate and timely updates to the public on their progress. In the event that adjustments are required to an approved plan, the grantee must submit a formal amendment request to the Department for consideration. States may submit for Department approval amendment requests to a plan and budget, provided such changes do not significantly affect the scope or objectives of the approved plans. In the event that the Department determines that a grantee is not meeting its goals, activities, timelines, budget, or annual targets, or is not fulfilling other applicable requirements, the Department will take appropriate enforcement action(s), consistent with 34 CFR section 80.43 in the Education Department General Administrative Regulations (EDGAR).⁵

State-specific summary report

The Department uses the information gathered during the review process (e.g., through monthly calls, onsite reviews, and Annual Performance Reports (APRs) to draft State-specific summary reports).⁶ The State-specific summary report serves as an assessment of a State's annual Race to the Top implementation. The Year 2 report for Phase 3 grantees highlights successes and accomplishments, identifies challenges, and provides lessons learned from implementation from approximately December 2012 through December 2013.

¹ The remaining funds were awarded under the Race to the Top Assessment program. More information about the Race to the Top Assessment program is available at www.ed.gov/programs/racetothetop-assessment.

² More information on the Race to the Top – Early Learning Challenge can be found at <http://www2.ed.gov/programs/racetothetop-earlylearningchallenge/index.html>.

³ More information on Race to the Top – District can be found at <http://www2.ed.gov/programs/racetothetop-district/index.html>.

⁴ Participating local educational agencies (LEAs) are those LEAs that choose to work with the State to implement all or significant portions of the State's Race to the Top plan, as specified in each LEA's Memorandum of Understanding with the State. Each participating LEA that receives funding under Title I, Part A will receive a share of the 50 percent of a State's grant award that the State must subgrant to LEAs, based on the LEA's relative share of Title I, Part A allocations in the most recent year, in accordance with section 14006(c) of the American Recovery and Reinvestment Act of 2009 (ARRA).

⁵ More information about the Implementation and Support Unit's (ISU's) program review process, State Annual Performance Report (APR) data, and State Scopes of Work can be found at <http://www2.ed.gov/programs/racetothetop/index.html>.

⁶ Additional State-specific data on progress against annual performance measures and goals reported in the Year 2 APRs can be found on the Race to the Top Data Display at www.rtt-apr.us.

Executive Summary

State's education reform agenda⁷

Arizona crafted its Race to the Top plan to serve as a roadmap to improve Arizona's education system and ensure that students are well prepared for the 21st century. After the Phase 2 Race to the Top competition, Arizona Governor Janice Brewer charged the P-20 Coordinating Council (Council) with determining how the major reform initiatives in the State's Phase 2 application could be implemented. Over several months the Council's Work Group met to transition the Race to the Top proposal into a viable Arizona education reform plan that could meet Race to the Top's benchmarks. The Work Group set the vision, goals and initiatives based on the Phase 2 application and drafted a strategic plan for implementation.

Guiding the Work Group's efforts was an urgent need to prepare students to be leaders in a new economy that highly values advanced knowledge and skills, particularly in STEM subjects. To that end, Governor Brewer also asked Science Foundation Arizona (SFAz) to create an Arizona STEM Network (Network) to unify and align resources around STEM education and more rapidly meet the demands of college and 21st century careers. Composed of leaders in Arizona's education, business and policy, the Network strategically leverages individual, disparate efforts around STEM education and moves them toward a common agenda that will accelerate improved student outcomes. The Network created the *Arizona STEM Network Business Plan*, which drew upon input from across Arizona's 15 counties and involved more than 800 participants from education, business and government. This collaboration and vision formed the foundation for the State's Phase 3 plan.

Supporting the successful implementation of the Arizona College- and Career-Ready Standards (AZCCRS) is central to the State's Race to the Top Phase 3 plan. In determining how to focus the grant, the Governor's Office of Education Innovation (GOEI) led a group in evaluating progress, identifying gaps, targeting current needs and agreeing upon priorities. The process revealed the following priorities:

- Providing Regional Centers with additional support so that they can help facilitate the transition to college- and career-ready standards and assessments.
- Rolling out the AZCCRS, and ensuring that the roll-out was well-aligned with STEM activities already under development.
- Providing educators with assistance in understanding and acting upon the data that they are provided.

The State received a \$25,080,554 Race to the Top Phase 3 award to focus on transitioning to the AZCCRS and integrating STEM teaching and learning with AZCCRS, especially for rural and Native American students. The State will provide support and assistance to participating LEAs, efficiently monitor LEA plan implementation, widely disseminate and replicate effective practices statewide, and intervene when necessary to achieve State goals.

State Year 1 summary

During Year 1, Arizona worked to create the organizational structures and planning documents to execute its Race to the Top Phase 3 grant. These structures included the five Regional Centers and the Collaborative Education Partners (CEP) group composed of leaders from the Arizona Department of Education (ADE), GOEI and the Regional Centers. The State created a State Scope of Work that focused the State's Race to the Top efforts on supporting the transition to the AZCCRS at the LEA level and creating Regional Centers to support professional development. The ADE assisted LEAs in developing their Race to the Top Scopes of Work and budgets to leverage Race to the Top funds to support local standards transition plans.

The State also made progress in Year 1 training LEAs on the student-teacher-course connection process and piloted the process with eight LEAs. ADE worked closely with LEA student information system vendors and LEA data specialists to prepare for school year (SY) 2012-2013.

Arizona was not able to implement the processes to gather data from LEAs on the AZCCRS transition, a critical piece of the State's plan. The State developed performance measures to gauge the scope and impact of the State's efforts, but greatly underestimated the time and planning required to adequately measure their impact.

State Year 2 summary

Accomplishments

In Year 2, the State was successful in maintaining critical partnerships at the State and Regional Center levels to execute its AZCCRS transition strategic plan. ADE, in cooperation with the Regional Centers and other professional development providers, delivered a variety of types and levels of professional development to the State's educators. With GOEI the State maintained a consistent public awareness and messaging campaign and sought a variety of survey data from the public, teachers, trainers and principals.

During Year 2, the State successfully worked with nearly 600 LEAs through the student-teacher-course connection data upload process. In completing this process, the State has effectively created the foundation for greater data use from the classroom to State levels. ADE, in collaboration with Regional Centers and student information system vendors, worked to build local capacity to gather and share student-teacher-course connection data using common course catalogues.

Challenges

During Year 2, the State was delayed in releasing a statewide instructional resource vetting process to increase the number

⁷ This section reflects counts of schools and students reported in the State's Phase 3 application.

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of high-quality resources available for the field, a critical piece of the State's standards transition work. In addition, the State did not have an electronic platform that LEAs used widely to share resources and the State is delayed in making one available. Arizona's recent approval to develop web-based tools to facilitate resource sharing among LEAs may mitigate this challenge in the future.

Looking ahead to Year 3

In Year 3, Arizona LEAs will be fully transitioned to new college- and career-ready standards. ADE, in collaboration with GOEI

and the Regional Centers plan to continue providing professional development and training to educators, as requested. The State plans to release an instructional resources vetting process that will standardize the way in which LEAs and Regional Centers evaluate resources for alignment to the new standards. The State will continue to refine its student-teacher-course connection data collection processes and build links with postsecondary data sources. Finally, the State plans to develop a new web-based system for educators to share high-quality instructional resources and another system for online professional development.

State Success Factors

Building strong statewide capacity to implement, scale up, and sustain proposed plans

In Year 2, the State made considerable progress in establishing the planning processes and stakeholder support to execute ADE's standards transition plan and to support LEAs with student-teacher-course connection data uploads. For grant specific activities, the Race to the Top Senior Director, together with two supporting staff, provided technical assistance to the State's 221 participating LEAs to create local Scope of Work documents and allocate Race to the Top funds to support local efforts to make the standards transition. This technical assistance has prompted further conversation about how to leverage funds from multiple sources to drive the standards transition at the local level. In addition, Race to the Top staff created fiscal and programmatic sub-recipient monitoring protocols to better track LEA-level spending and implementation, which they hope to ultimately combine and analyze to inform the State's standards implementation approach and professional development needs. ADE has learned more about the variety in local implementation and identified areas for additional assistance. Using a risk-based assessment, ADE conducted six onsite reviews and two desk reviews with participating LEAs during fall 2013 with plans to reach at least 30 LEAs each year of the grant period.

ADE, in collaboration with GOEI and representatives from the State's five Regional Centers, created a standards transition strategic plan composed of three parts: awareness and messaging; professional development; and, instructional resources. This plan guides the State's approach to the statewide transition and coordination with Regional Centers (for more detail, see *Standards and Assessments* below). The Race to the Top Senior Director, staff from ADE's kindergarten through twelfth grade (K-12) Standards Division, and county superintendents from the Regional Centers oversee execution

of the plan and participate in workgroups for each component. In this way, the State's Race to the Top work is embedded in existing work streams at ADE and leverages efforts that began prior to the grant period.

The CEP group continued to meet quarterly throughout Year 2 and greatly refined its composition and work flows. The CEP reviewed Regional Center progress; generated common messaging; and reviewed survey processes and results. With members from ADE, each Regional Center and the Governor's office, the CEP was successful in ensuring there was consistent messaging about the rigor needed for professional development and in revising a vetting process for instructional materials. During summer 2013, members of the CEP reviewed their progress since spring 2012, when they first began meeting regularly, and re-set expectations for participation and involvement.

The CEP framed three workgroups around the central components of the standards transition strategic plan. Though the CEP and its workgroups have been functional for two years, it is unclear to what timelines or goals the State and Regional Centers hold themselves accountable, or whether CEP meetings are being used to ensure that work keeps moving and increasing in quality. For example, the State's plan called for development and implementation of an instructional resources vetting process to identify high-quality local resources to support resource development across the State – a critical need among LEAs. However, as of December 2013, the State had yet to release the process or create expectations for its use during SY 2013-2014.

Regional Centers

Arizona's five Regional Centers were fully operational during Year 2. After significant relationship building and planning in Year 1, in Year 2 each Regional Center staffed up and created regionally appropriate methods of providing services to participating LEAs. Each center has a regional lead county that directs services within the region, advises

State Success Factors

other counties, as appropriate, and convenes leaders from other counties for planning purposes. Each Regional Center established some form of governance structure in Year 2. For example, the Maricopa County Educational Service Agency (MCESA) works in one county so leadership and services coordination rest with the County Superintendent. On the other hand, the Southern Arizona Regional Center (SAREC) includes Pima, Cochise and Santa Cruz counties so SAREC's Executive Committee voted to make Pima County the lead county given their size and pre-existing role with professional development.

Throughout Year 2, staff at the Regional Centers provided a variety of training opportunities for participating LEAs in their region. Each Regional Center has a website through which LEAs or groups of teachers can see a calendar of trainings or request personalized training. While actual trainings and services vary across regions, they are tailored to the needs of the LEA or group of teachers making the request. The nature of the services also depends on the capacity and resources of the lead county. During the grant period, Regional Centers are focused on providing Phase 1 and 2 training (see *Standards and Assessments* section for more detail) to Race to the Top participating LEAs, but, for example, these trainings might be provided by a content specialist within the county or may be contracted services.

Arizona's Regional Centers

Through five Lead County education agencies, Arizona's Regional Centers were initially created using State Fiscal Stabilization Fund (SFSF) funds, and further supported through Race to the Top. They are focused on supporting participating LEAs in transitioning to new college- and career-ready standards and provide technical assistance for statewide data systems – a function and role Arizona education stakeholders described a need for during community meetings and focus groups in 2010. Each center provides regionally-based services, support and technical assistance.

For more information, visit <http://www.azed.gov/azccrs/regionalcenters/>.



During Year 2, the State made commendable progress in establishing Regional Centers and creating an identity for them as new service providers. However, the precise reach of their services was unclear by the end of Year 2. There was evidence that the centers were targeting small, rural or remote LEAs, as described in the State's Scope of Work. It also appeared larger LEAs with greater capacity relied less on Regional Centers for guidance or training. In addition, it was unclear by the end of Year 2 to what extent Regional Centers were able to identify best practices and share them more widely within the region, as was described in the State's Race to the Top plan. The State reports these aspects of the Regional Center's work may begin once LEAs have fully transitioned to the new standards in SY 2013-2014.

Governor's Office for Education Innovation

During Year 2, GOEI continued to support awareness and messaging aspects of the standards transition with ADE and the Regional Centers. In particular, GOEI supported the communication effort after Governor Brewer's September 2013 Executive Order directed State agencies to change what had until then been called the Arizona Common Core Standards to the Arizona College and Career Ready

Standards. The State reports that the State's commitment to the standards is unchanged.

GOEI also oversaw the inclusion of AZCCRS-related questions in the State's annual omnibus survey of the public. The April 2013 administration of the survey indicated a considerable drop in the percentage of those surveyed indicating that they had heard of the new standards, from 46 percent in October 2012 to 28 percent. In addition, GOEI administers a monthly teacher survey that began April 2013 and has reached a cumulative number of 1,991 teachers as of November 2013. Survey results over time indicate that teachers who are trained in the new standards and upgrade their skills more strongly believe that the standards will improve education in the State and in their classrooms.

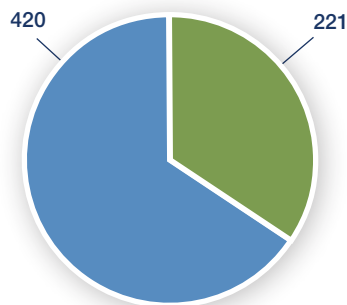
In addition, GOEI updated and posted updated content to the Arizona Ready Report Cards in August 2013. Available at <http://www.arizonaready.com/content/index.html>, the online dashboards depict three to five years of Pre-K-12, postsecondary, and workforce data. The State was unable to report traffic on the site or use of the data at the State level.

State Success Factors

LEA participation

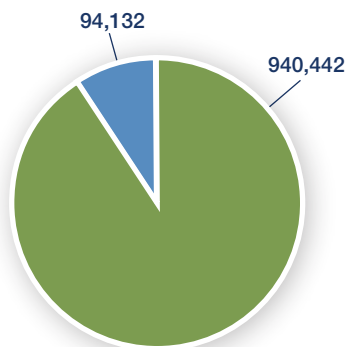
Arizona reported 221 participating LEAs as of June 30, 2013. This represents 91 percent of the State's K-12 students and 89 percent of its students in poverty. Fourteen LEAs discontinued their participation in Race to the Top during SY 2012-2013.

LEAs participating in Arizona's Race to the Top plan



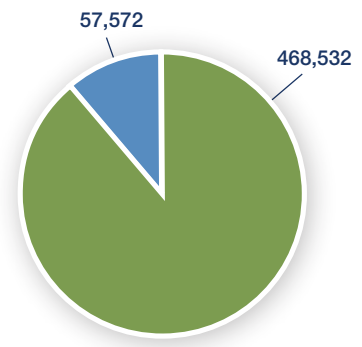
■ Participating LEAs (#)
■ Other LEAs

K-12 students in LEAs participating in Arizona's Race to the Top plan



■ K-12 students (#) in participating LEAs
■ K-12 students (#) in other LEAs

Students in poverty in LEAs participating in Arizona's Race to the Top plan



■ Students in poverty (#) in participating LEAs
■ Students in poverty (#) in other LEAs

The number of K-12 students and number of students in poverty statewide are calculated using pre-release data from the National Center for Education Statistics' (NCES) Common Core of Data (CCD). Students in poverty statewide comes from the CCD measure of the number of students eligible for free or reduced price lunch subsidy (commonly used as a proxy for the number of students who are economically disadvantaged in a school) under the U.S. Department of Agriculture's National School Lunch Program. The students in poverty statewide count is an aggregation of school-level counts summed to one State-level count. Statistical procedures were applied systematically by CCD to these data to prevent potential disclosure of information about individual students as well as for data quality assurance; consequently State-level counts may differ from those originally reported by the State. Please note that these data are considered to be preliminary as of November 1, 2013.

For State-reported context, please refer to the Race to the Top APR at www.rtt-apr.us.

Successes, challenges, and lessons learned

During Year 2, Arizona refined its State-level oversight structures to drive implementation of the standards transition plan and operationalize five Regional Centers. Together, the CEP group and the services provided by Regional Centers to participating LEAs provide an infrastructure for common messaging and rigorous professional development. The State has been delayed, however, in releasing a vetting process for instructional materials. The State's Race to the Top performance measures anticipated implementation in spring 2012, but as of December 2013, the State had yet to release the process to LEAs. Finally, at the State level, ADE and GOEI

have been deliberate in soliciting a large amount of survey data from the general public, teachers and trainers about the standards transition. In addition, GOEI has invested in publicly displaying multiple years of student outcome, postsecondary and workforce data. However, work remains in making this feedback and data useful for implementation and for teachers, leaders and communities.

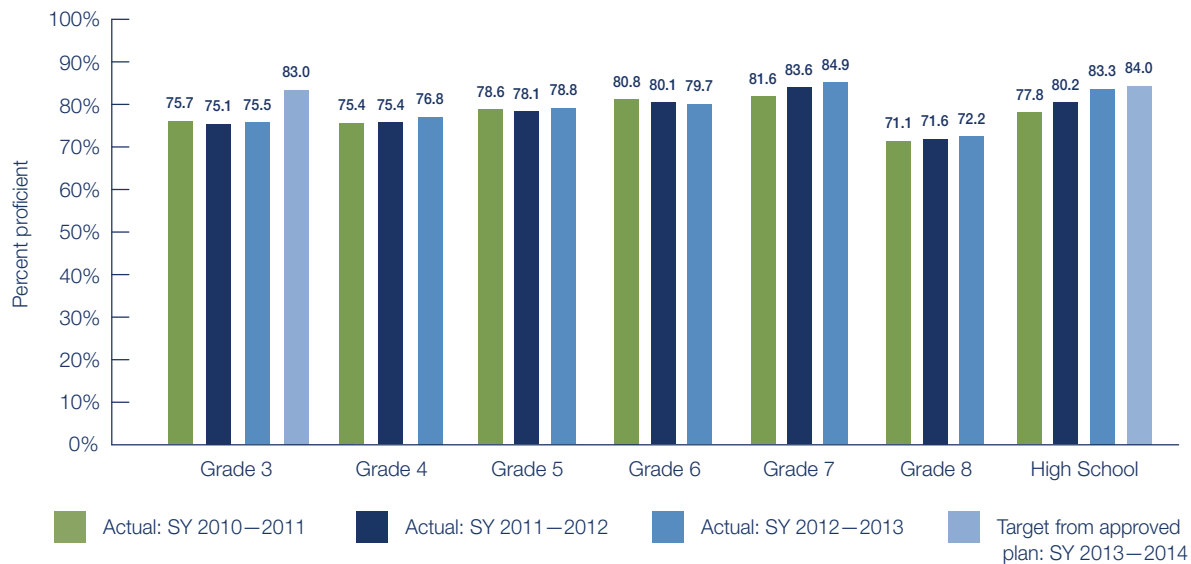
The Regional Centers successfully provided services and training to participating LEAs in Year 2 and continued to refine their processes and services. The State afforded Regional Centers sufficient flexibility to vary the type and coordination of services to meet local needs, which appears to be successful.

State Success Factors

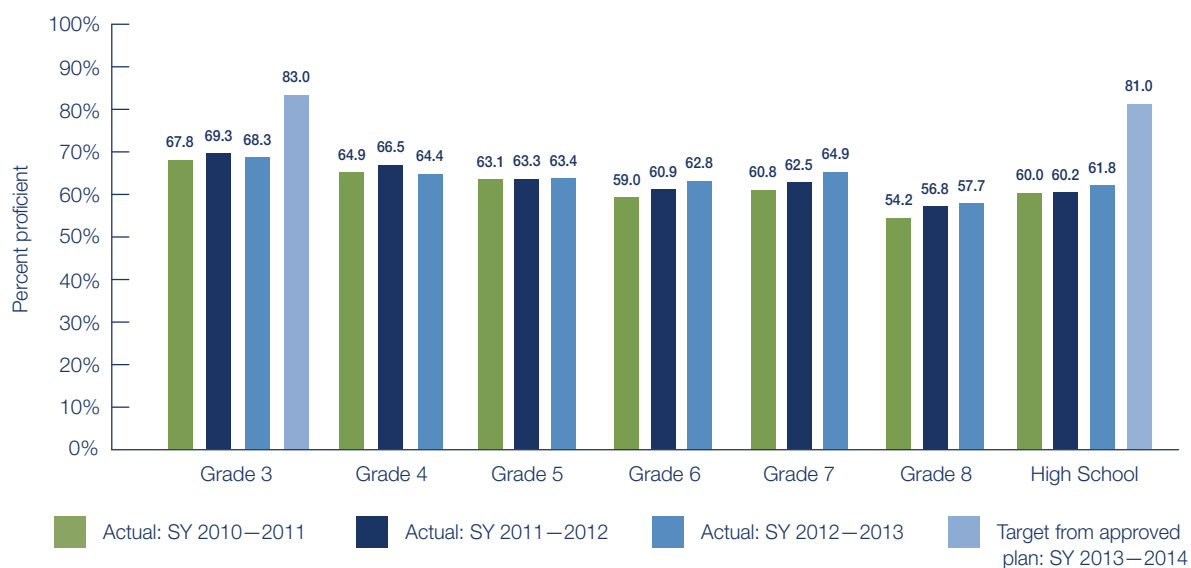
Student outcomes data

Results from Arizona's Instrument to Measure Standards (AIMS) assessment showed increases in the percentage of students proficient in English language arts (ELA) from SY 2011-2012 to SY 2012-2013, except for in grade 6. Proficiency percentages on the AIMS mathematics assessment were mixed across grade levels in SY 2012-2013.

Student proficiency on Arizona's ELA assessment



Student proficiency on Arizona's mathematics assessment



Preliminary SY 2012-2013 data reported as of: December 2, 2013.

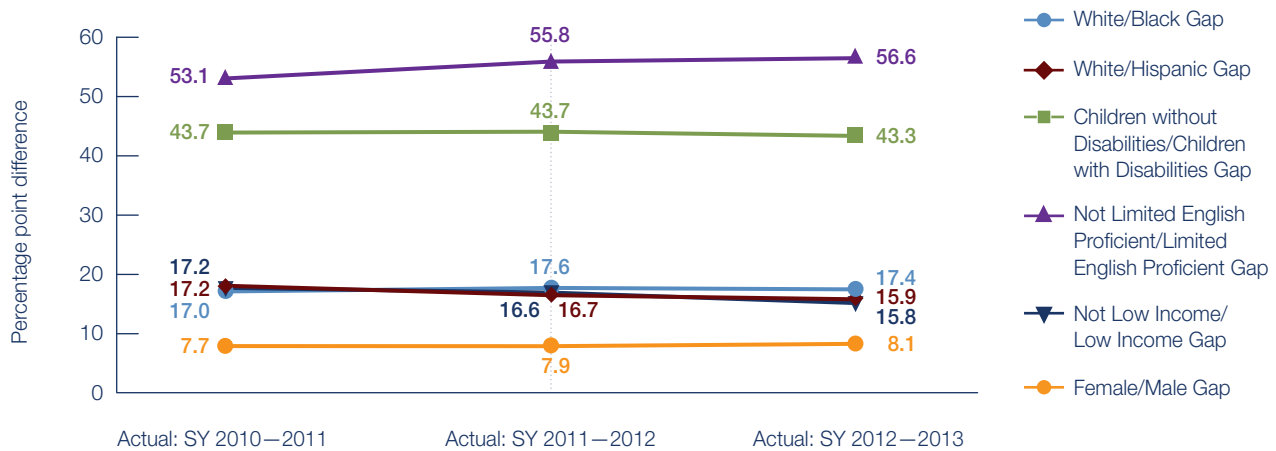
NOTE: Over the last three years, a number of States adopted new assessments and/or cut scores.

For State-reported context, please refer to the Race to the Top APR at www.rtt-apr.us.

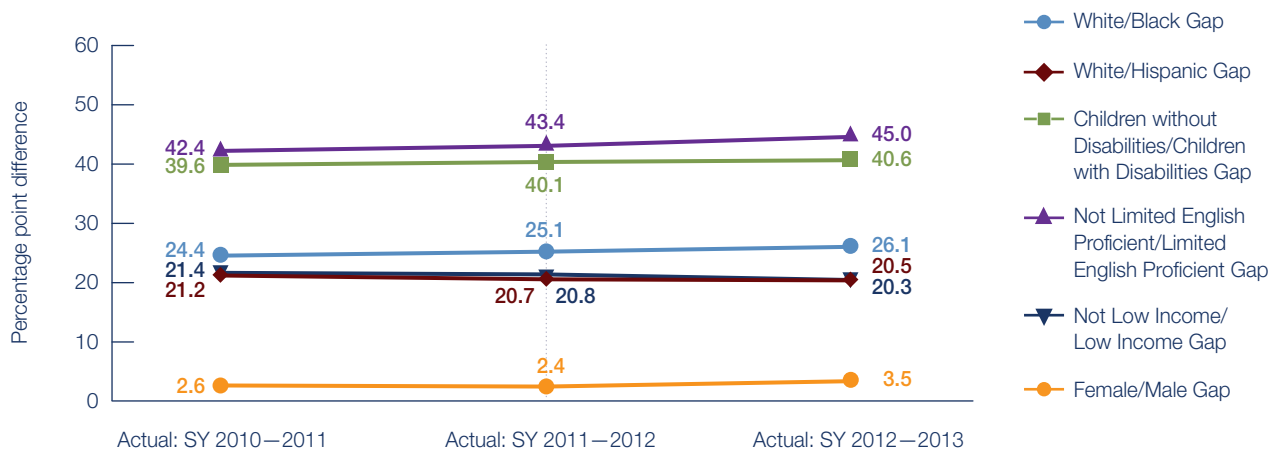
State Success Factors

Between SY 2011-2012 and SY 2012-2013, achievement gaps on the AIMS ELA and mathematics assessments stayed about the same.

Achievement gap on Arizona's ELA assessment



Achievement gap on Arizona's mathematics assessment



Preliminary SY 2012-2013 data reported as of: December 2, 2013.

Numbers in the graph represent the gap over three school years between two sub-groups on the State's ELA and mathematics assessments.

Achievement gaps were calculated by subtracting the percent of students scoring proficient in the lower-performing sub-group from the percent of students scoring proficient in the higher-performing sub-group to get the percentage point difference between the proficiency of the two sub-groups.

If the achievement gap narrowed between two sub-groups, the line will slope downward. If the achievement gap increased between two sub-groups, the line will slope upward.

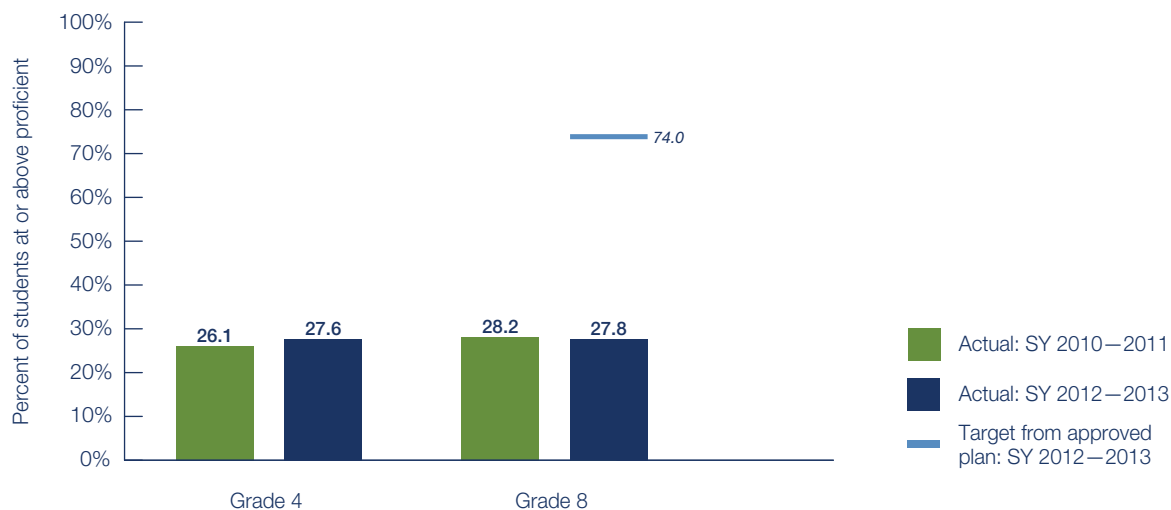
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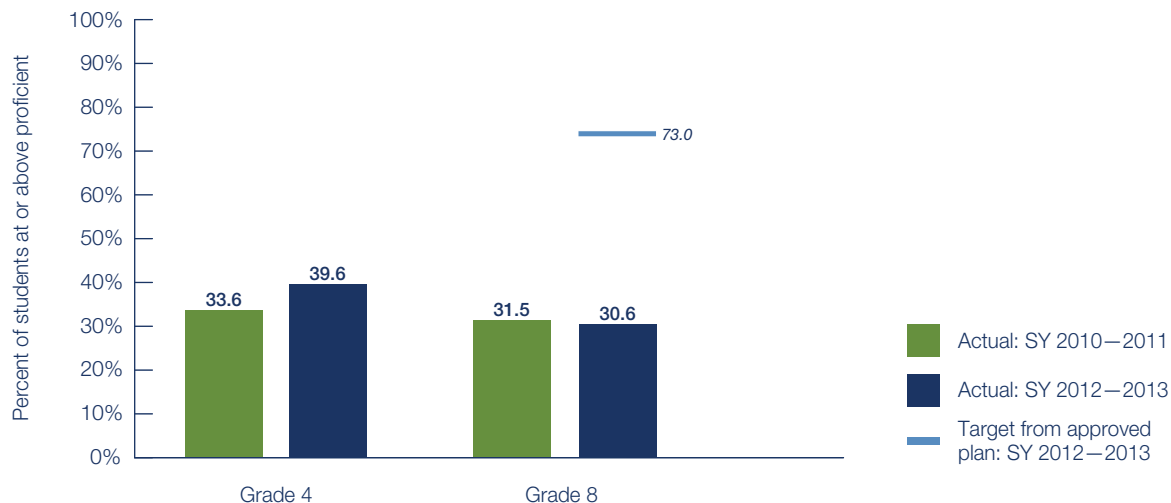
State Success Factors

The percentage of grade four and grade eight students at or above proficient on the National Assessment of Educational Progress (NAEP) for reading remained about the same from 2011 to 2013. The percentage of Arizona's grade four students who were at or above proficient in mathematics was significantly higher in 2013 than in 2011.

Student proficiency, NAEP reading



Student proficiency, NAEP mathematics



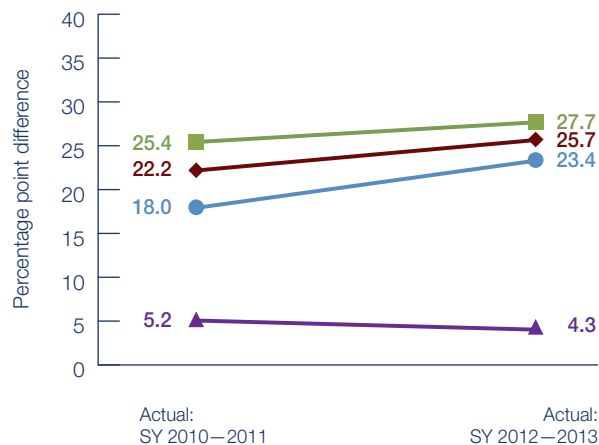
NAEP is administered once every two years. The two most recent years are SY 2010-2011 and SY 2012-2013. NAEP reading and mathematics results are provided by the Department of Education's Institute of Education Sciences. To learn more about the NAEP data, please visit <http://nces.ed.gov/nationsreportcard/>.

Arizona's approved Race to the Top plan included targets for NAEP results based on percentages, not based on students' average scale scores.

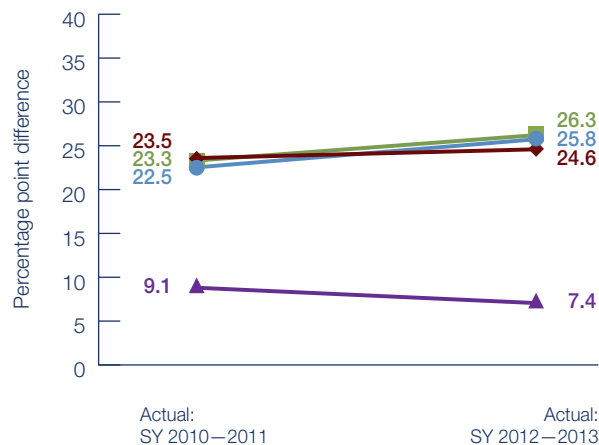
State Success Factors

Results from the 2013 NAEP assessments indicate that achievement gaps increased for nearly all sub-groups in grade four mathematics. However, in grade eight mathematics, achievement gaps narrowed slightly between white and black students, and between white and Hispanic students. Achievement gaps in grade four and grade eight NAEP reading increased for most sub-groups between 2011 and 2013.

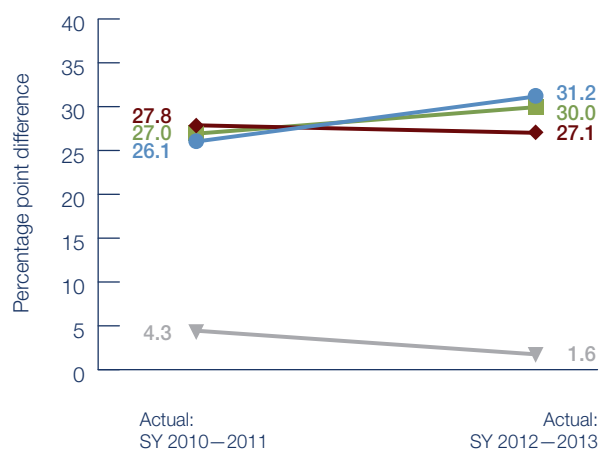
Grade 4 achievement gap on NAEP reading



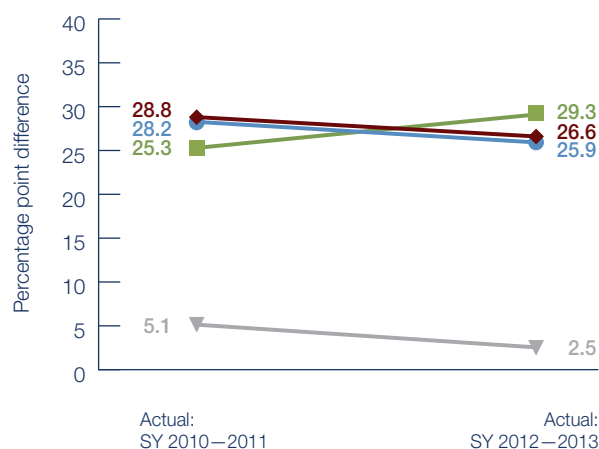
Grade 8 achievement gap on NAEP reading



Grade 4 achievement gap on NAEP mathematics



Grade 8 achievement gap on NAEP mathematics



—●— White/Black Gap
 —▲— Female/Male Gap
 —■— Not National School Lunch Program Eligible/ National School Lunch Program Eligible
—◆— White/Hispanic Gap
 —▼— Male/Female Gap

NAEP is administered once every two years. The two most recent years are SY 2010-2011 and SY 2012-2013. Arizona's NAEP reading and mathematics results are provided by the Department of Education's Institute of Education Sciences. To learn more about the NAEP data, please visit <http://nces.ed.gov/nationsreportcard/>.

Numbers in the graph represent the gap in a school year between two sub-groups on the NAEP reading and NAEP mathematics.

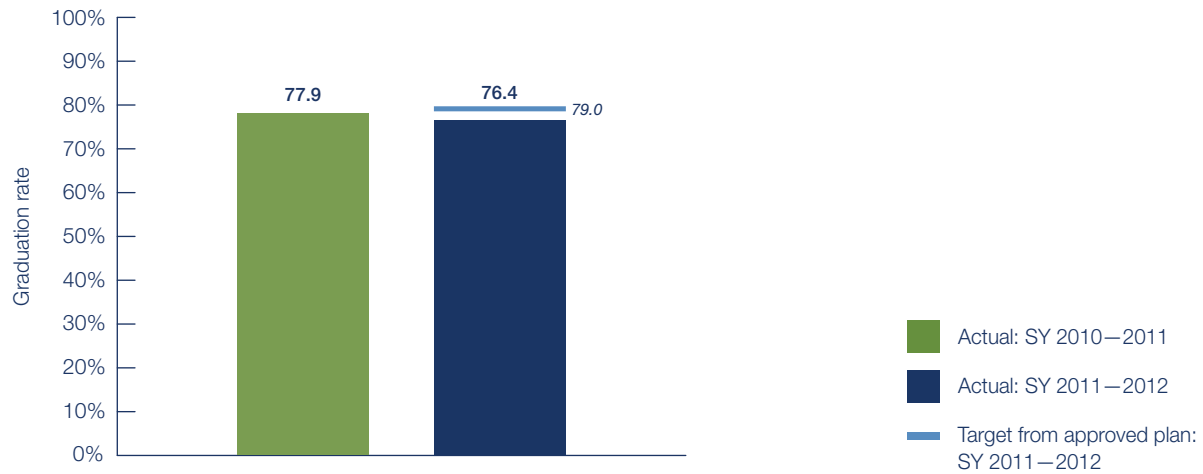
Achievement gaps were calculated by subtracting the percent of students scoring proficient in the lower-performing sub-group from the percent of students scoring proficient in the higher-performing sub-group to get the percentage point difference between the proficiency of the two sub-groups.

If the achievement gap narrowed between two sub-groups, the line will slope downward. If the achievement gap increased between two sub-groups, the line will slope upward.

State Success Factors

Arizona's high school graduation rate remained about the same from SY 2010-2011 to SY 2011-2012.

High school graduation rate



Preliminary SY 2011-2012 data reported as of: August 13, 2013.

For State-reported context, please refer to the Race to the Top APR at www.rtt-apr.us.

Standards and Assessments

Implementing rigorous college- and career-ready standards and assessments that prepare students for success in college and career is an integral aspect of education reform in Race to the Top States.

Supporting the transition to enhanced college- and career-ready standards and high-quality assessments

The Arizona State Board of Education adopted new standards on June 28, 2010, now called AZCCRS. Arizona is a governing State of the Partnership for Assessment of Readiness for College and Careers (PARCC). In Year 2, ADE reported that adopting a new State assessment requires the agency to abide by the State's procurement laws and that they will release a request for proposals for a new assessment. The standards remain a central component to the State's reform plans. According to the State's standards implementation timeline, some grades fully implemented the new standards in SY 2012-2013 and all grades transitioned to the new standards for ELA and mathematics in SY 2013-2014.

In Year 2, ADE continued to convene a State-level Steering Committee to oversee implementation of the standards transition strategic plan. The Steering Committee's workgroups are framed around the three prongs of the strategic plan: awareness and messaging, resource development, and professional development. With over 600 LEAs statewide and 221 Race to the Top participating LEAs, ADE faces capacity challenges in addressing local needs during the transition period, particularly with the large number of rural and remote LEAs. During Year 2, staff in ADE's High Academic Standards for Students office made a strategic shift in their outreach efforts to target professional development providers in the State. Recognizing that LEAs historically rely on specific sources for their professional development, for example the Arizona K12 Center or the Teacher Advancement Program, ADE began coordinating with these entities to ensure alignment with their strategic plan. ADE points to this outreach as a way to ensure that those that provide professional development to Arizona educators are consistent with ADE in terms of desired quality, progression of difficulty and messaging language.

Also in Year 2, ADE increased its capacity to gather data from the field related to the standards transition. In particular, the State deploys various surveys to measure teacher and principal perception of various aspects of the transition, including preparedness, the standard's impact on student learning, quality of training, and school-level supports. In addition, the surveys ask teachers and principals about what types of resources would be most desired. For example, the top two desired resources among teachers were lesson plans aligned to the AZCCRS (65 percent) and collaborative planning time for aligning curriculum to AZCCRS (52 percent). The top two desired resources among principals were content-focused trainings on AZCCRS (56 percent) and resources on research or best practice in standards implementation (56 percent). ADE, GOEI and the Regional Centers continue to refine how to use survey data to respond and adjust implementation of the standards transition strategic plan.

As part of the RSN's Chief Information Officer (CIO) Network meeting, members from various Race to the Top States, including Arizona, participated and agreed that an inventory of the Race to the Top States' efforts would be a significant resource in their efforts to learn from each other and work together on collaborative projects. All Race to the Top States are featured in the inventory, which is updated on an ongoing basis. Arizona has been an active contributor to the CIO group throughout the year.

Role of Regional Centers in AZCCRS transition

Throughout Year 2, the State's five Regional Centers played a critical role in implementing the State's standards transition strategic plan. As described in *State Success Factors*, each center provided trainings and coordinated services for LEAs based on local needs. Each center operates differently: those with greater capacity may send individuals to conduct training at requesting LEAs; those with less capacity may coordinate contracted services to train groups of educators or provide tailored coaching, for example. Each regional educator center maintains a Regional Implementation Support Team (RIST) that supports participating LEAs in the region and coordinates and tracks services rendered through the grant. The Lead County Superintendent and key content staff from each Regional Center represents the region at quarterly CEP meetings and acts as the conduit between the State and LEAs. In addition, each RIST participates in Steering Committee workgroups and provides feedback on statewide initiatives before they are implemented, such as the instructional materials vetting process and data collection processes.

Communications and community outreach

In Year 2, ADE and GOEI continued to work with the Regional Centers as part of the CEP group to execute a social media campaign that included Facebook and Twitter posts related to the standards transition. GOEI maintains the Facebook page and responds to feedback from the public. The Public Engagement Taskforce continued to maintain and update a Communication Toolkit on the ADE website that includes an overview of the standards, key message documents and documents for parents and families, business leaders, students and educators. The Taskforce updated this toolkit following the standards name change. Finally, ADE continued to update its website at <http://www.azed.gov/azccrs/> with resources for teachers, administrators, students, families and business and community leaders. The site includes professional development offerings and calendars for face-to-face training, webinars and online courses. Each Regional Center has a webpage, available at <http://www.azed.gov/azccrs/regionalcenters/>.

Standards and Assessments

Dissemination of resources and professional development

The State was successful throughout Year 2 in providing a variety of professional development to educators through multiple sources and methods. ADE's approach to professional development involves three phases of training: Phase 1 training focuses on awareness of the standards and an overview of the instructional shifts; Phase 2 training goes deeper into the content and pedagogy demanded by the standards; and Phase 3 training will bridge the mathematics and ELA training with STEM and career and technical education (CTE), in addition to strategies on how to meet the needs of English learners and students with disabilities. Phase 2 training is the most extensive in that it emphasizes effective instructional practices according to grade band and content area, lesson design, and also leverages the Educators Evaluating Quality Instructional Products (EQuIP) rubric and Instructional Practice Evidence Guide, resources ADE adapted from Achieve. This level of training is delivered to educators through a multitude of sources including ADE, Regional Centers, the Arizona Charter Schools Association and external private or non-profit providers. As SY 2012-2013 progressed, ADE considered alternative methods for providing Phase 2 training to reach the most educators, including "go to" meetings and uploads to Edmodo sites.⁸ From December 2012 to October 2013, ADE and the Regional Centers conducted 793 total AZCCRS sessions, 532 ELA sessions, and 261 mathematics sessions reaching over 23,000 educators. Participants included educators of all grade levels and subjects, principals, and district leaders. Survey data indicated high levels of satisfaction with each type of training.

Developing and sharing high-quality instructional resources remains a key component of the State's Race to the Top Phase 3 work, but in Year 2, the State was delayed in releasing the process to identify high-quality resources, and struggled to provide a technology platform on which to share the items. Consistent with lessons learned during training in Year 1, the State made an intentional shift to train more educators on the EQuIP rubric for evaluating lessons and units in ELA and mathematics. ADE reports that EQuIP rubric training is the most direct way to address LEA challenges around AZCCRS-aligned instructional materials because the training gives educators the skills to rigorously evaluate existing resources, identify gaps and create aligned resources. Throughout Year 2, ADE and the Regional Centers developed a step-by-step process to vet instructional materials, building from the EQuIP rubric, and created a broader dissemination

strategy to reach more educators. The State reported plans to release the rubric in fall 2013, but as of December 2013 had not yet released the process. In the State's Race to the Top performance measures, the State set a target of creating and sharing 70 high-quality ELA instructional resources and 70 mathematics resources through an eLearning platform in SY 2012-2013. However, the State reported that no resources were developed and shared.

In the State's Race to the Top plan, instructional resources developed by LEAs would be shared statewide through an eLearning platform. However, the State reported that most educators and LEAs do not use the State's system, called IDEAL, because it is not user-friendly, is password protected and does not have search capabilities. In November 2013, the State received Departmental approval to shift funds from the to the Data Systems budget to support development of a Content Management System (CMS) and a Learning Management System (LMS). The State reports that these systems will be developed using an interoperable code and will be open to all educators without a password. The CMS will house online professional development courses and webinars while the LMS will house instructional resources. The State plans to release these systems by the end of SY 2013-2014.

Successes, challenges, and lessons learned

Arizona made considerable progress during Year 2 in strengthening State-level oversight and coordination structures to actualize the State's standards transition strategic plan. The combination of the ADE Steering Committee, GOEI and RISTs effectively maintain the State's commitment to and focus on LEA messaging and high-quality training for the standards transition. The State, with Regional Centers, focused on supporting LEAs primarily with tiers of professional development that reach all educators. With over 600 LEAs statewide and over 200 Race to the Top participating LEAs, the State used a variety of survey data to understand the needs of the field and the reach of its professional development efforts. Feedback indicates that the training has been well-received, but that there are gaps in preparedness, particularly as it relates to instructional resources. The State's delays in releasing an instructional materials vetting process may challenge LEAs and educators as they fully transition to the new standards and a new assessment.

⁸ "Go to" meetings allow for Arizona Department of Education (ADE) to set up webinars for up to 1,000 people quickly and without information technology support. Edmodo is a web-based platform with a social-networking feel that, in this use, allows ADE to communicate and share information directly with educators.

Data Systems to Support Instruction

Statewide longitudinal data systems (SLDS) and instructional improvement systems (IIS) enhance the ability of States to effectively manage, use, and analyze education data to support instruction. Race to the Top States are working to ensure that their data systems are accessible to key stakeholders and that the data support educators and decision-makers in their efforts to improve instruction and increase student achievement.

Accessing and using State data

The State's Race to the Top data systems work centers on the process for collecting statewide student-teacher-course connection data. In Arizona, this involves LEAs using a course mapping process to match students with teachers and courses. This process may build from student information systems with existing vendors; for LEAs without formal student information systems, this may be a new level of data organization. According to the State, Arizona's data systems are in compliance with the Family Educational Rights and Privacy Act (FERPA).

Using lessons learned from the spring 2012 pilot, the State supported 585 LEAs that completed the data upload process for the first time in SY 2012-2013. ADE's relationships with the State's top student information system vendors helped smooth the process for the majority of the State's LEAs. In addition, the ADE Help Desk and vendors provided technical assistance to LEAs as LEAs progressed through the data upload process. ADE also noted trends with technical assistance requests and solicited feedback from LEAs at the fortieth day, hundredth day and end-of-year submissions, which mark milestones in the upload sequence. By June 2013, ADE had verified student-teacher-course connection data for 98 percent of the State's LEAs. The State continues to work with the remaining two percent of small and remote LEAs without student information systems.

The State maintained a variety of online resources and worked with key stakeholder groups to assist LEAs in the course mapping and uploading process throughout SY 2012-2013. In addition to FAQs, trainings, video tools and webinars, the State made available a common statewide course-mapping tool to streamline the process for some LEAs. By the end of the school year, many LEAs determined it was best to align their data to the statewide tool, called the Arizona Course Catalogue that defines course titles to the National Center for Education Statistics School Codes for Exchange of Data (NCES SCED) for pre-secondary and secondary courses. To reach the

diversity of LEAs in the State, ADE worked with the Arizona Charter School Association to support charter schools in providing timely and accurate uploads. Throughout the year, ADE also worked with the Arizona School Computer Users' Support (ASCUS) group to identify key data leaders in the field and at each LEA. ASCUS also provided feedback on the system based on the field's experience, which in turn informed changes to the work. Regional Centers provided additional technical assistance and identified trends and problem areas for LEAs. In particular, the State has found that the course mapping process is challenging for the elementary grades where electives and alternative courses are sometimes available but not listed in the course catalogue. In addition, the State acknowledges that for the system to meet its full potential the data uploads must occur on a daily basis, which the system is not currently equipped to do. The State aims to provide this level of data reliability by SY 2014-2015.

Successes, challenges, and lessons learned

During Year 2, the State successfully created the first statewide data infrastructure by working with each LEA to upload student-teacher-course connection data. The State effectively used lessons from the spring 2012 pilot to inform the statewide roll out and leveraged stakeholder groups and the Regional Centers to support the State's diversity and large number of LEAs. These tailored supports facilitated completion of the process among the majority of LEAs. By the end of summer 2013, ADE had moved the process into a "business as usual" phase with ADE's information technology office. In fall 2013, the State began considering next steps now that it has established the process with LEAs. In particular the State is beginning to draw connections between the K-12 system and postsecondary data sets, and is considering data governance strategies to ensure the data can be used to support other initiatives.

Emphasis on Science, Technology, Engineering, and Mathematics (STEM)

Race to the Top Phase 3 States are committed to providing a high-quality plan with a rigorous course of study in STEM. In their applications, grantees committed to allocating a meaningful share of their award to advances in STEM education in the State. A focus on STEM furthers the goal of preparing more students for an advanced study in sciences, technology, engineering, and mathematics, including among underrepresented groups such as female students.

State's STEM initiatives

As articulated in Arizona's Race to the Top Phase 3 plan, the State's STEM work is an outgrowth of the standards transition work. During Year 2 the State's standards transition strategic plan focuses on Phase 1 and 2 professional development (see *Standards and Assessments*). Much of the State's Phase 3 professional development, which hones in on the intersections between the new ELA and mathematics standards and science, technology, engineering, and career and technical education, will begin in Year 3.

ADE closely partnered with SFAz and the Arizona STEM Network in supporting LEAs in integrating STEM. In particular, ADE shared with LEAs a free resource developed by SFAz and the Arizona STEM Network, called the STEM Immersion Guide. The guide provides a framework for educators to think through what it looks like to integrate STEM at the LEA and building levels from "exploratory" to "full immersion."⁹ Arizona's participating LEAs were encouraged to utilize the STEM Immersion Matrix to inform their LEA Scope of Work planning and development. The State reports that it is planning additional ADE and CTE collaboration in Year 3.

Looking Ahead to Year 3

In Year 3, the State will continue to use the CEP group, RISTs and the standards transition Steering Committee to drive implementation of its strategic plan. As LEAs engage in full implementation of AZCCRS throughout SY 2013-2014, ADE will leverage partnerships with other professional development providers to expand training options for educators. In addition, the State will receive proposals for the new summative assessment administration in spring 2015 and work closely with the State legislature to fund the new assessment.

Consistent with implementation in Year 2, ADE, with Regional Centers, will continue to provide professional development and other training services to participating LEAs. In Year 3, these training options will expand to include intersections between the new standards and STEM, CTE and response to intervention. Finally, the State plans to release the instructional materials vetting process, adapted from Achieve's EQuIP rubric, statewide to promote the creation, analysis and public sharing of high-quality instructional materials aligned

to the new standards. As proposed, the vetting process will take local development of instructional resources and put them through a review process at the LEA and Regional Center levels before sharing them on the CMS, planned for release by May 2014.

In Year 3, LEAs will complete the student-teacher-course connection data upload process again. This data systems work will expand to include making connections to postsecondary data sets. In addition, the State will consider ways in which to make the student-teacher-course connection data more robust and meaningful for educators, including increasing system capacity for more frequent updates and linking this data system to the State's new standards and evaluation system work. Finally, in January 2014 the State will begin plans to procure, pilot and deploy statewide a new CMS and LMS to support educator access to training and LEA's ability to access searchable instructional materials. The State plans to release these tools by June 2014.

Budget

For the State's expenditures through June 30, 2013, please see the APR Data Display at <http://www.rtt-apr.us>.

For State budget information, see <http://www2.ed.gov/programs/racetothetop/state-scope-of-work/index.html>.

For the State's fiscal accountability and oversight report, see <http://www2.ed.gov/programs/racetothetop/performance-fiscal-accountability.html>.

⁹ See <http://stemguide.sfaz.org/> for more information on the STEM Immersion Guide.

Glossary

Alternative routes to certification: Pathways to certification that are authorized under the State's laws or regulations that allow the establishment and operation of teacher and administrator preparation programs in the State, and that have the following characteristics (in addition to standard features such as demonstration of subject-matter mastery, and high-quality instruction in pedagogy and in addressing the needs of all students in the classroom including English learners and students with disabilities): (1) can be provided by various types of qualified providers, including both institutions of higher education and other providers operating independently from institutions of higher education; (2) are selective in accepting candidates; (3) provide supervised, school-based experiences and ongoing support such as effective mentoring and coaching; (4) significantly limit the amount of coursework required or have options to test out of courses; and (5) upon completion, award the same level of certification that traditional preparation programs award upon completion.

Amendment requests: In the event that adjustments are needed to a State's approved Race to the Top plan, the grantee must submit an amendment request to the Department for consideration. Such requests may be prompted by an updated assessment of needs in that area, revised cost estimates, lessons learned from prior implementation efforts, or other circumstances. Grantees may propose revisions to goals, activities, timelines, budget, or annual targets, provided that the following conditions are met: the revisions do not result in the grantee's failure to comply with the terms and conditions of this award and the program's statutory and regulatory provisions; the revisions do not change the overall scope and objectives of the approved proposal; and the Department and the grantee mutually agree in writing to the revisions. The Department has sole discretion to determine whether to approve the revisions or modifications. If approved by the Department, a letter with a description of the amendment and any relevant conditions will be sent notifying the grantee of approval. (For additional information please see <http://www2.ed.gov/programs/racetothetop/amendments/index.html>.)

America COMPETES Act elements: The 12 indicators specified in section 6401(e)(2)(D) of the America COMPETES Act are: (1) a unique statewide student identifier that does not permit a student to be individually identified by users of the system; (2) student-level enrollment, demographic, and program participation information; (3) student-level information about the points at which students exit, transfer in, transfer out, drop out, or complete P-16 education programs; (4) the capacity to communicate with higher education data systems; (5) a State data audit system assessing data quality, validity, and reliability; (6) yearly test records of individual students with respect to assessments under section 1111(b) of the Elementary and Secondary Education Act (ESEA) (20 U.S.C. 6311(b)); (7) information on students not tested by grade and subject; (8) a teacher identifier system with the ability to match teachers to students; (9) student-level transcript information, including information on courses completed and grades earned; (10) student-level college-readiness test scores; (11) information regarding the extent to which students transition successfully from secondary

school to postsecondary education, including whether students enroll in remedial coursework; and (12) other information determined necessary to address alignment and adequate preparation for success in postsecondary education.

American Recovery and Reinvestment Act of 2009 (ARRA): On February 17, 2009, President Obama signed into law the ARRA, historic legislation designed to stimulate the economy, support job creation, and invest in critical sectors, including education. The Department of Education received a \$97.4 billion appropriation.

Annual Performance Report (APR): Report submitted by each grantee with outcomes to date, performance against the measures established in its application, and other relevant data. The Department uses data included in the APRs to provide Congress and the public with detailed information regarding each State's progress on meeting the goals outlined in its application. The final State APRs are found at www.rtt-apr.us.

College- and career-ready standards: State-developed standards that build toward college and career readiness by the time students graduate from high school.

Common Core State Standards (CCSS): Kindergarten through twelfth grade (K-12) English language arts and mathematics standards developed in collaboration with a variety of stakeholders including governors, chief State school officers, content experts, teachers, school administrators, and parents. (For additional information, please see <http://www.corestandards.org/>).

The education reform areas for Race to the Top: (1) Standards and Assessments: Adopting rigorous college- and career-ready standards and assessments that prepare students for success in college and career; (2) Data Systems to Support Instruction: Building data systems that measure student success and support educators and decision-makers in their efforts to improve instruction and increase student achievement; (3) Great Teachers and Great Leaders: Recruiting, developing, retaining, and rewarding effective teachers and principals; and (4) Turning Around the Lowest-Achieving Schools: Supporting local educational agencies' (LEAs') implementation of far-reaching reforms to turn around lowest-achieving schools by implementing school intervention models.

Effective teacher: A teacher whose students achieve acceptable rates (e.g., at least one grade level in an academic year) of student growth (as defined in the Race to the Top requirements). States, LEAs, or schools must include multiple measures, provided that teacher effectiveness is evaluated, in significant part, by student growth (as defined in the Race to the Top requirements). Supplemental measures may include, for example, multiple observation-based assessments of teacher performance.

High-minority school: A school designation defined by the State in a manner consistent with its Teacher Equity Plan. The State should provide, in its Race to the Top application, the definition used.

Glossary

High-poverty school: Consistent with section 1111(h)(1)(C)(viii) of the ESEA, a school in the highest quartile of schools in the State with respect to poverty level, using a measure of poverty determined by the State.

Highly effective teacher: A teacher whose students achieve high rates (*e.g.*, one and one-half grade levels in an academic year) of student growth (as defined in the Race to the Top requirements). States, LEAs, or schools must include multiple measures, provided that teacher effectiveness is evaluated, in significant part, by student growth (as defined in the Race to the Top requirements). Supplemental measures may include, for example, multiple observation-based assessments of teacher performance or evidence of leadership roles (which may include mentoring or leading professional learning communities) that increase the effectiveness of other teachers in the school or LEA.

Instructional improvement systems (IIS): Technology-based tools and other strategies that provide teachers, principals, and administrators with meaningful support and actionable data to systemically manage continuous instructional improvement, including such activities as instructional planning; gathering information (*e.g.*, through formative assessments (as defined in the Race to the Top requirements), interim assessments (as defined in the Race to the Top requirements), summative assessments, and looking at student work and other student data); analyzing information with the support of rapid-time (as defined in the Race to the Top requirements) reporting; using this information to inform decisions on appropriate next instructional steps; and evaluating the effectiveness of the actions taken. Such systems promote collaborative problem-solving and action planning; they may also integrate instructional data with student-level data such as attendance, discipline, grades, credit accumulation, and student survey results to provide early warning indicators of a student's risk of educational failure.

Invitational priorities: Areas of focus that the Department invited States to address in their Race to the Top applications. Applicants did not earn extra points for addressing these focus areas, but many grantees chose to create and fund activities to advance reforms in these areas.

Involved LEAs: LEAs that choose to work with the State to implement those specific portions of the State's plan that necessitate full or nearly-full statewide implementation, such as transitioning to a common set of K-12 standards (as defined in the Race to the Top requirements). Involved LEAs do not receive a share of the 50 percent of a State's grant award that it must subgrant to LEAs in accordance with section 14006(c) of the ARRA, but States may provide other funding to involved LEAs under the State's Race to the Top grant in a manner that is consistent with the State's application.

Participating LEAs: LEAs that choose to work with the State to implement all or significant portions of the State's Race to the Top plan, as specified in each LEA's agreement with the State. Each participating LEA that receives funding under Title I, Part A will receive a share of the 50 percent of a State's grant award that the State must subgrant to LEAs, based on the LEA's relative share of Title I, Part A allocations in the most recent year at the time of the award, in accordance with section 14006(c) of the ARRA. Any participating LEA that does not receive funding under Title I, Part A (as well as one that does) may receive funding from the State's other 50 percent of the grant award, in accordance with the State's plan.

The Partnership for Assessment of Readiness for College and Careers (PARCC): One of two consortia of States awarded grants under the Race to the Top Assessment program to develop next-generation assessment systems that are aligned to common K-12 English language and mathematics standards and that will accurately measure student progress toward college and career readiness. (For additional information please see <http://www.parcconline.org/>.)

Persistently lowest-achieving schools: As determined by the State, (1) any Title I school in improvement, corrective action, or restructuring that (a) is among the lowest-achieving five percent of Title I schools in improvement, corrective action, or restructuring or the lowest-achieving five Title I schools in improvement, corrective action, or restructuring in the State, whichever number of schools is greater; or (b) is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years; and (2) any secondary school that is eligible for, but does not receive, Title I funds that (a) is among the lowest-achieving five percent of secondary schools or the lowest-achieving five secondary schools in the State that are eligible for, but do not receive, Title I funds, whichever number of schools is greater; or (b) is a high school that has had a graduation rate as defined in 34 CFR 200.19(b) that is less than 60 percent over a number of years. To identify the lowest-achieving schools, a State must take into account both (1) the academic achievement of the "all students" group in a school in terms of proficiency on the State's assessments under section 1111(b)(3) of the ESEA in reading/language arts and mathematics combined; and (2) the school's lack of progress on those assessments over a number of years in the "all students" group. (For additional information please see <http://www2.ed.gov/programs/sif/index.html>.)

Qualifying evaluation systems: Educator evaluation systems that meet the following criteria: rigorous, transparent, and fair evaluation systems for teachers and principals that: (1) differentiate effectiveness using multiple rating categories that take into account data on student growth as a significant factor, and (2) are designed and developed with teacher and principal involvement.

Glossary

Reform Support Network (RSN): In partnership with the Implementation and Support Unit, the RSN offers collective and individualized technical assistance and resources to grantees of the Race to the Top education reform initiative. The RSN's purpose is to support the Race to the Top grantees as they implement reforms in education policy and practice, learn from each other and build their capacity to sustain these reforms.

The **School Improvement Grants (SIG)** program is authorized under section 1003(g) of Title I of the ESEA. Funds are awarded to States to help them turn around persistently lowest-achieving schools. (For additional information please see <http://www2.ed.gov/programs/sif/index.html>.)

School intervention models: A State's Race to the Top plan describes how it will support its LEAs in turning around the lowest-achieving schools by implementing one of the four school intervention models:

- **Turnaround model:** Replace the principal and rehire no more than 50 percent of the staff and grant the principal sufficient operational flexibility (including in staffing, calendars/time and budgeting) to fully implement a comprehensive approach to substantially improve student outcomes.
- **Restart model:** Convert a school or close and reopen it under a charter school operator, a charter management organization, or an education management organization that has been selected through a rigorous review process.
- **School closure:** Close a school and enroll the students who attended that school in other schools in the district that are higher achieving.
- **Transformation model:** Implement each of the following strategies:
(1) replace the principal and take steps to increase teacher and school leader effectiveness, (2) institute comprehensive instructional reforms, (3) increase learning time and create community-oriented schools, and (4) provide operational flexibility and sustained support.

Single sign-on: A user authentication process that permits a user to enter one name and password in order to access multiple applications.

The **SMARTER Balanced Assessment Consortium (Smarter Balanced):** One of two consortia of States awarded grants under the Race to the Top Assessment program to develop next-generation assessment systems that are aligned to common K-12 English language and mathematic standards and that will accurately measure student progress toward college and career readiness. (For additional information please see <http://www.k12.wa.us/SMARTER/default.aspx>.)

The **State Scope of Work:** A detailed document for the State project that reflects the grantee's approved Race to the Top application. The State Scope of Work includes items such as the State's specific goals, activities, timelines, budgets, key personnel, and annual targets for key performance measures. (For additional information please see <http://www2.ed.gov/programs/racetothetop/state-scope-of-work/index.html>.) Additionally, all participating LEAs are required to submit Scope of Work documents, consistent with State requirements, to the State for its review and approval.

Statewide longitudinal data systems (SLDS): Data systems that enhance the ability of States to efficiently and accurately manage, analyze, and use education data, including individual student records. The SLDS help States, districts, schools, educators, and other stakeholders to make data-informed decisions to improve student learning and outcomes, as well as to facilitate research to increase student achievement and close achievement gaps. (For additional information please see http://nces.ed.gov/Programs/SLDS/about_SLDS.asp.)

Student achievement: For the purposes of this report, student achievement (1) for tested grades and subjects is (a) a student's score on the State's assessments under the ESEA; and, as appropriate, (b) other measures of student learning, such as those described in number (2) of this definition, provided they are rigorous and comparable across classrooms; and (2) for non-tested grades and subjects, alternative measures of student learning and performance such as student scores on pre-tests and end-of-course tests; student performance on English language proficiency assessments; and other measures of student achievement that are rigorous and comparable across classrooms.

Student growth: The change in student achievement (as defined in the Race to the Top requirements) for an individual student between two or more points in time. A State may also include other measures that are rigorous and comparable across classrooms.

Value-added models (VAMs): A specific type of growth model based on changes in test scores over time. VAMs are complex statistical models that generally attempt to take into account student or school background characteristics in order to isolate the amount of learning attributable to a specific teacher or school. Teachers or schools that produce more than typical or expected growth are said to "add value."